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NEPTUNE Helping Program Managers Understand their Program Customers

Zannette A. Uriell, M.A. Michael J. Schwerin, Ph.D

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Zannette A. Uriell, M.A. Navy Personnel Research, Studies, and Technology

Michael J. Schwerin, Ph.D. RTI International

Reviewed and Approved by
Paul Rosenfeld, Ph.D.
Acting Director, Institute for Organizational Assessment

Released by David L. Alderton, Ph.D. Director

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Retaining personnel has always been important to the military, but has become a necessity in recent years. Because of this, Quality of Life (QOL) of Sailors has come under intense scrutiny and become a topic of a number of studies. Generally, because the programs impacting QOL are dissimilar, most of these studies have looked at QOL overall or been specific to a program or a small group of programs. This annotated brief outlines some of these studies and discusses in greater detail a recent project that assessed a number of dissimilar programs, leading to the creation of the NEPTUNE System to allow managers at different organizational levels to better understand their customers. Possible future directions for improvements are included.						
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Foreword

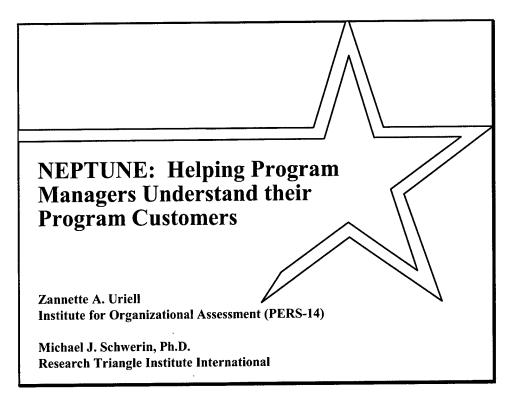
This effort was funded by the Office of Naval Research (ONR) under the Program Element number PE 0604703N, L1822, sponsored by the Assistant Commander Navy Personnel Command for Personal Readiness and Community Support (PERS-6). The objective of this study was to design an assessment system and methodology that could be applied to the entire spectrum of Navy Quality of Life programs in order to evaluate their impact on desired military outcomes.

This report contains an overview of the decision support system designed to allow managers at all levels to view program data.

DAVID L. ALDERTON, Ph.D. Director

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The Chief of Naval Operations (CNO) has said, "I intend to lead a Navy that holds quality of service for Sailors, for their quality of life and their quality of work, as a top priority in mission and combat readiness." (CNO, 2000) Additionally, studies have found that meeting non-work quality of life (QOL) needs impacts retention intentions (Koopman & Goldhaber, 1997; Wilcove, Wolosin, & Schwerin, 2002). This paper presents a prototype decision support system (DSS), entitled the Navy Evaluation Program to Track User Needs Electronically (NEPTUNE), that was created for a study to: 1) determine a program evaluation methodology encompassing all Navy QOL programs and 2) find program impact on the military outcomes of readiness and retention.



Background - Quality of Life Studies

- Commanders always have been interested in well-being of personnel
- In early 1990s, first formal studies of Navy Quality of Life (QOL) conducted
 - Needs based
- · Later studies conducted to determine a global QOL score
- In late 1990s, studies tried to link programs to QOL

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Good commanding officers have always been interested in the well-being of their Sailors. They may have asked their users for feedback, either formally (e.g., comment cards, customer surveys) or informally (e.g., word of mouth). Although helpful, this does not lend itself to easily determining where to best allocate resources to achieve the greatest effect on Sailors and their families.

With the All-Volunteer Force, the Navy has become more sensitive to QOL in order to compete with the civilian sector. In the 1990s, some of the headquarters QOL divisions began conducting Navy-wide assessments; Morale, Welfare and Recreation (MWR) and Fleet and Family Service Centers (FFSC) both conducted surveys to determine program use and satisfaction. Additionally, the Navy began studying the topic of QOL itself, with the first studies attempting to identify needs of Sailors and Marines (Booth-Kewley & Thomas, 1993), and later studies trying to find a relationship between needs and the concept of global QOL (Wilcove, 1996) and then QOL and career intentions (Kerce, 1995; White, Baker, & Wolosin, 1999; Wilcove & Schwerin, 2002).

In the late 1990s, Kerce (1998) and Kerce, Sheposh, and Knapp (1999) attempted to find empirical links between programs. To do this, Kerce (1998) created a list of Reasons for Being—statements that might indicate a program's purpose, such as providing support to allow members to concentrate on their mission. Surveys with questions based upon these Reasons for Being were administered at select sites. Kerce et al. (1999) found that this methodology was effective overall, despite problems with a lack of objective data and a limited number of respondents.



Background - DSS in the Navy

- · Historically DSS primarily used at the headquarters level
 - Used often for planning and forecasting Navy manpower
- · Generally has not been used for QOL programs
 - Most headquarters programs conduct data calls as needed
 - QOLMIS

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Historically DSS have been used at the headquarters level, usually for planning and forecasting manpower and for personnel needs and requirements. With increases in information technology (IT) capabilities, they have become much more useful and common in the military. The Air Force has a system for its equal opportunity assessments; data from individual bases or commands can be "rolled up" to higher levels for analysis. The Navy's Argus system gathers exit/retention survey data that can be used at a variety of levels.

QOL was not one of the early adopters of DSS. Traditionally, if data were required to answer an internal Navy tasker or a Congressional inquiry, a data call was sent out and bases would send their data back to headquarters. There was a system created for a small number of QOL programs called Quality of Life Management Information System (QOLMIS), but this system was not intuitive and some felt it was not useful.

Objectives



Allow managers at diverse locations and at different hierarchical levels to determine:

- How Sailors rate programs on quality
- · How well each program meets primary objectives
- · Which programs have greatest impact on outcomes
- Differences between locations

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The primary objectives of the DSS included determining: 1) how Sailors rate the different programs on their quality (i.e., hours, facilities, range of services/programs, customer service, quality of service, and value of services in relation to cost); 2) how well each program meets its primary objectives (see Appendix A for a list of Reasons for Being used in this study); 3) which programs have the greatest impact on outcomes (i.e., QOL, personal readiness, and career intentions); and 4) what differences there are between Navy locations.

Challenges



· Variety of Navy Quality of Life (QOL) programs

Bachelor Housing Child Development CREDO Deployment Support Family Housing Food and Hospitality Navy College Program
Personal Financial Management
Recreation and Fitness
Relocation Assistance Program
Spouse Employment Assistance Program
Youth Programs

- · Wide variety of sponsors
- · Lack of objective data
- · Lack of "roll-up" for some programs

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QOL within the Navy is complex. Because of the unique characteristics of Navy life, Sailors and their families are always being impacted by non-work Navy programs (see Appendix B for a listing of programs used in this study).

Because of the military hierarchy, there are a number of levels of oversight for each of these programs. Each program has its own manager at the headquarters level. There are overall QOL managers at the claimant level (determined by mission) and at the regional level (determined by geography). The actual day-to-day operations of the programs are determined at each base, with program managers reporting to the base commanding officer. Each of these levels requires different amounts of detailed information.

Some of the recreational programs primarily raise money for other programs, and have therefore primarily tracked monetary data. Others are certified on a recurring basis and so are required to have data on a number of factors. There are not consistent objective measures across all programs.

Because the funding and managing of programs has been delegated to lower levels, sometimes higher-level managers do not have knowledge about customer opinions at the base level. When required to justify a program, the program managers might conduct data calls, where they request information from individual bases about select topics. However, these data calls generally are on an as-needed basis, to answer a specific question.

Decision Support System: NEPTUNE



- Original plan was to compare programs and locations based upon key questions, cost per user
 - Some key data not obtainable
- · Modified system allows users to query to fit their needs
- · Single database with multiple access levels
 - Different amounts of information available at each of the levels

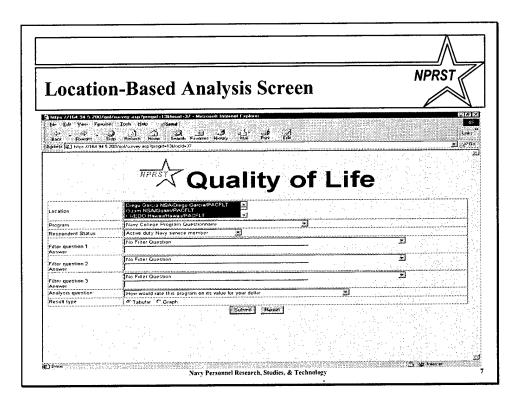
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The original concept for a decision support system (DSS) was to allow users to input a wide variety of data and then generate an index score for each of the programs to allow for comparisons. When index scores were not possible because of the lack of quantitative, objective data for many of the programs, the DSS was only populated with the survey data. This was done because the survey data was more information than some had access to previously and the survey data met recent policy requirements for funding; users could query the system to find the survey information they needed.

After introductory screens, NEPTUNE asks for a user name and password. The system is set up to allow users to only access information that directly relates to them. For example, a base user in Norfolk is allowed access to that base's information as well as a composite for all the bases within that region. There are four access levels of the database that are based on geographical location, from base-level to entire Navy; at each of these access levels users may see more data. There is also a level that is not based on geography; program managers at the headquarters level are able to see all data for their particular program.

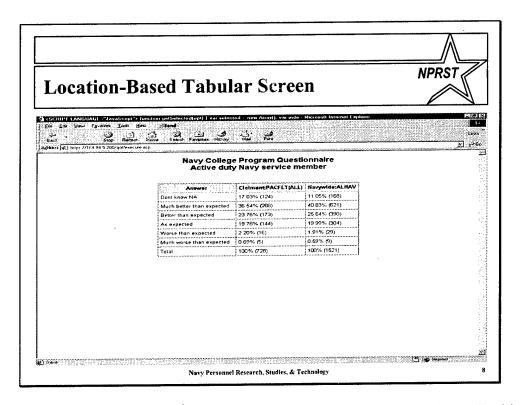
Since this is a prototype, the following screenshots reflect only those few locations where surveys were administered. Therefore, if all PACFLT is selected, the information displayed in the screenshot only reflects those bases where data were collected.



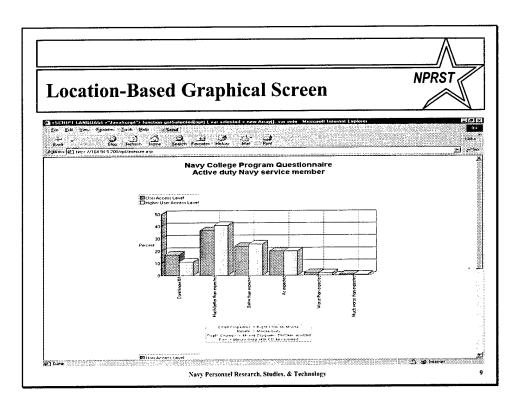
Once within the system, users can select a program and geographical location. They can also filter the system with respondent status and up to three other questions; for example in Recreation, users can select only active duty respondents who used the onbase gymnasium once a week and a civilian facility once a week. Once any filters are selected, a desired analysis question must be selected. These include the quality questions, program impact questions, and Reasons for Being questions (see Schwerin, Michael, & Uriell (2002) for a description of Reasons for Being and for actual surveys). Results can be presented as either a table or a graph, and always show the selected location and the next highest level.

In the situation above, the user is a claimant user from the Pacific Fleet (PACFLT). The Location box lets this user chose among the bases in PACFLT, including Diego Garcia and Guam. By default, all locations are chosen, but the user can chose only one base or a select number of bases to look at.

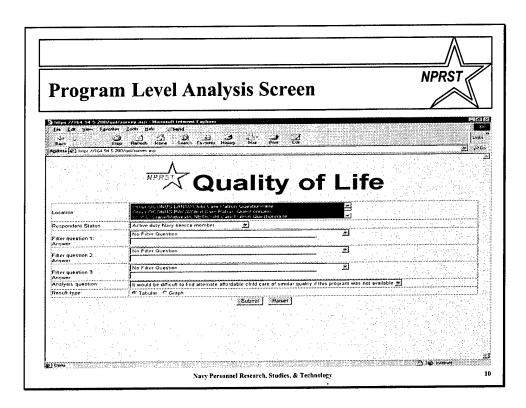
In this case, the user is interested in the Navy College Program, specifically the active duty Navy members and the perceived value. No filters other than the respondent's status are being applied.



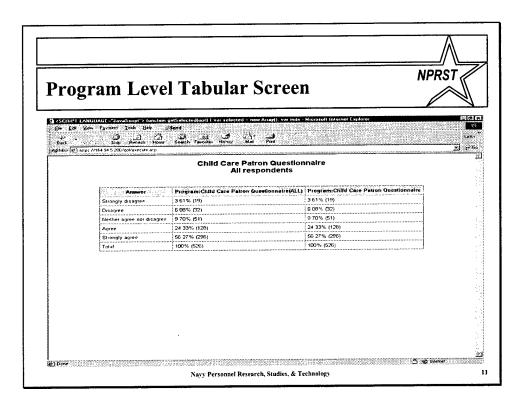
This table shows the answers chosen by respondents for the selected bases (in this case all bases within PACFLT) and for the next higher level in the Chain of Command, the entire Navy. This allows for a quick comparison to determine how PACFLT is doing compared to the entire Navy. In this example, about 80 percent of PACFLT is getting an expected or better than expected value for their dollar, while 88 percent of the entire Navy feels the same way.



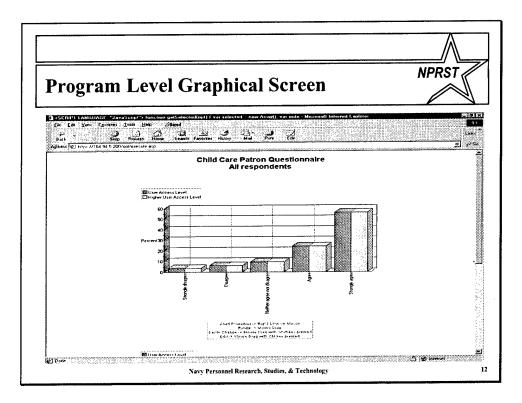
This shows the graphical results of the analysis. With the graph, it is easier to see the comparison between the levels. While more of the Navy (grey) respondents are getting a much better value than they expected, more of the PACFLT (black) respondents indicated they don't know or it is not applicable.



Analyses can also be conducted at headquarters for an entire program. This shows the analysis screen for the Child Care program. Again, the user can select specific bases or groups of bases (default is the entire Navy) as well as the respondent's status and three other filter questions.



Because all locations in the Navy were selected, there is no higher level so both numerical columns are identical.



Reformatting the analyses as a graph, it is easy to see that the two groups are the same. Had a specific location or group of locations been selected, the black bar would change to indicate data for the selection, while the grey bar would remain the same to indicate program-wide data.

Lessons Learned



- · Explain requirements at each level of leadership
- Have a mandate for change from leadership
- · Collect consistent information
- Be prepared for training users

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A few lessons were learned in creating NEPTUNE. Because this study collected data from a number of locations, there were a number of leaders involved. There was a perception at the outset that because two locations can be compared, the system might be used as a "report card." Briefings at each of the locations and throughout the Chain of Command were conducted to explain the purpose of the study and what it could do for them.

The lack of objective data was discovered early in the study. Because there was no mandate for change from leadership, the researchers received the objective data available and had to find a way to make it work instead of the programs rethinking how they could better collect and provide data.

One of the needed pieces of objective data was number of users. Programs computed this differently; some counted how many came through the door, some counted how many unique users they had, and some counted how many drinks they sold. There was no clear definition of a user.

Training in interpreting results was needed; survey data typically has margins of error, so a 5-percentage point difference between two locations may not indicate that one is more effective than the other. This training would have to occur at all access levels and for all users.

Navy Customer Satisfaction DSS - New Possibilities



- New standards for objective and subjective data
- New capabilities utilizing the Navy-wide Intranet
- New possibilities to integrate into readiness reporting system

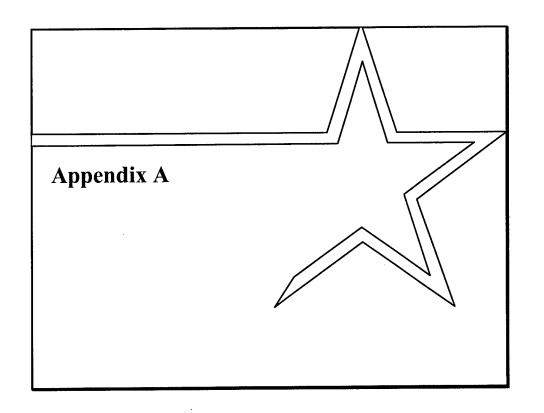
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Three changes have occurred since the beginning of this project that could create new possibilities for a customer satisfaction DSS. First, new standards are being developed for programs and new requirements are being put in place to collect objective data as well as subjective data. Second, the Navy will have an enterprise-wide intranet that could enhance DSS capabilities. Third, the Navy is creating a readiness reporting system that will be widely used, and a customer satisfaction DSS could feed results into this system.

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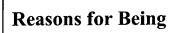


Reasons for Being

- 1. Promote the physical and psychological wellbeing of members, maintaining quality of life at a level to attract qualified men and women to the Navy.
- 2. Promote the physical and psychological wellbeing of members, maintaining quality of life at a level to retain qualified men and women to the Navy.
- 3. Provide a level of support that allows members to concentrate on their mission.
- 4. Provide a level of support that allows availability for deployment.
- 5. Provide educational opportunities that lead to personal satisfaction, maximization of individual contributions, and maintenance of the expertise required for the Navy of the future.

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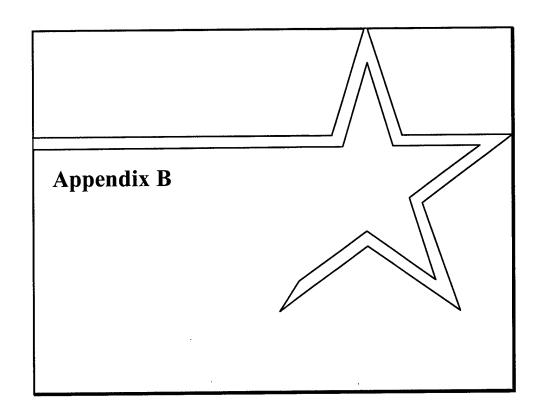




- 6. Demonstrate concern for members and their families to enhance morale and commitment to the Navy.
- 7. Make available the skills and tools to facilitate personal relationships, minimize the stresses of military life, and help members reduce tensions between military and family roles.
- 8. Help to ensure the health and safety of USN personnel and their families.
- 9. Increase personal and family satisfaction with adaptation to military life style.

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Appendix¹

Chaplain Religious Enrichment Delivery Operation (CREDO). The CREDO program provides an assortment of ministries to sea service personnel and their families to develop and use their personal and spiritual resources. The goal of CREDO is to help people grow toward increased functional ability, spiritual maturity, and acceptance of responsibility. CREDO programs include: Personal Growth Retreat (PGR); Spirituality: CREDO II; Christian Disciplines: CREDO III; Reclaiming the Inner Child; Marriage Enrichment Retreat (MER); and others (e.g., family retreats, teen retreats, men's retreats, and women's retreats). CREDO provides personal growth training in nine major areas: Norfolk, San Diego, Naples, Okinawa, Mayport, Hawaii, Camp Pendleton, Camp LeJeunc, and Bremerton. Services are provided to active duty, reserve, retired, and active duty family members.

Child Development (MWR program). Base Child Development provides child development, either on or off base, for children aged six weeks to five years. Child Development has both a base facility and secure positions with in-home, licensed providers. Child Development also offers advice and guidance for families exploring individual child-care providers. Child Development programs include Child Development Centers, Family Childcare, Off-base contract centers, and Off-base Family Childcare centers.

Clinical Counseling (FFSC program). The Clinical Counseling program offers short-term, individual, marriage, family, and group counseling to address situation problems in day-to-day living, depression/grief after a loss, troubled relationships, financial difficulties, occupational concerns, and family issues to active duty Sailors and their dependents. Counseling may take the form of education, stress management, or workshops.

Deployment Support (FFSC program). Deployment Support offers assistance to active duty Sailors and their dependents to manage the challenges of deployment (e.g., anticipate and understand the physical and emotional demands associated with deployment). Deployment Support consists of three phases: pre-deployment support, mid-deployment support, and return/reunion support.

Food and Hospitality (MWR program). Data collection sites include snack bars at the golf course and bowling alley, cafeteria style operations at the Bachelor Quarters, catering operations at the Officers' club, and bar lunch/dinners operations at the Officers', Chief Petty Officer, Enlisted, and Consolidated clubs.

Navy College Program (NCP). NCP provides consulting services for military members who wish to gain additional education skills and qualifications. These consulting services include tuition assistance, college/university information and degrees offered, educational

¹ From Schwerin, M. J., Michael, P. G., & Uriell, Z A. (2002). Navy Quality of Life (QOL) Program Contributions to Readiness and Retention. Volume 1: Design and Methodology (NPRST-TN-02-5). Millington, TN: Navy Personnel Research, Studies, and Technology.

goals examined, determining what past training may be applicable to a degree program and assistance in applying for entrance to a particular school. While it does not provide educational services itself, it arranges for universities to open campuses on or near base and negotiates degree requirements. NCP serves active duty with the following programs: Academic Skills, Service Member's Opportunity Colleges - Navy (SOCNAV, 2- and 4-year programs), Defense Activity Non-Traditional Education Support (DANTES), Program Afloat for College Education (PACE), High School Completion, On-Base College Program, and Tuition Assistance (TA).

Nutrition Education and Galley Food Services. The Health and Physical Readiness division of the Navy Personnel Command (PERS-60) sponsors a nutrition education program. This program works to provide dietary education to Sailors and dependents while assisting Navy galleys in menu guidance. The local base commander runs the Navy galley food services system with assistance from the Navy Supply Systems Command.

Personal Financial Management (PFM—FFSC program). The PFM program provides personal and family financial education, information services, and assistance, including but not limited to consumer education, advice and planning, and savings/investment counseling to active duty Sailors and their dependents.

Recreation and Fitness (MWR program). Bases provide a wide variety of sports, recreation, and fitness facilities for active duty military, dependents, retirees, and government civilians. Programs include: Information, Tickets and Tours (ITT), Gym/Fitness, Recreation Center, Single Sailor Program, Intramural Sports, Library, Park and Picnic, Outdoor Recreation Center, Swimming Pools, Auto Skills Shop, Bowling Center, Riding Stables, Marinas, and Golf Courses.

Relocation Assistance Program (RAP—FFSC program). RAP offers relocation information to active duty Sailors and dependents as well as government civilians for managing the military lifestyle. Services include destination information, intercultural relations training, settling-in services, help finding a home, and school information. Other program services include: Smooth Move (a seminar addressing the entire relocation process), Welcome Aboard seminars (basic training for Navy or Marine Corps spouses/families new to an area), and Overseas Transfer Workshop (topics include overseas screening, dependent entry approval, transportation, schools, household goods, and cultural relations).

Spouse Employment Assistance Program (SEAP—FFSC program). The SEAP addresses employment needs in basic workshops (launching a job search, career planning, resume writing, interview techniques, federal employment information, and networking), self-help job information centers, and individual employment counseling. SEAP serves Navy family members, retirees and their spouses, and civilian spouses who are relocating overseas to Department of Defense components.

Transition Assistance Management Program (TAMP—FFSC program). TAMP is designed to assist service members with career planning (i.e., weighing civilian alternatives against their military careers) and their transition from military to civilian life. There are many services associated with TAMP, however the most widely publicized is the Transition Assistance Program (TAP), a seminar designed to address social, financial and professional issues associated with transition out of the military.

Youth Programs (MWR program). Base youth centers provide day care for children aged as young as five through their teens with a variety of age specific recreation services both before and after school (all day during the summer). Youth Programs includes the Youth Center, Youth Sports, Teen Activities, and Summer Camps.

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